DOCUMENT RESUME

ED 170 308 TM 007 864

TITLE Manual for the USES Basic Occupational Literacy Test. Section 1: Administration, Scoring and Interpretation.

INSTITUTION Manpower Administration (DOL), Washington, D.C.

PUB DATE 74

NOTE 62p.; For related document, see TM 008 686

EDRS PRICE MF01/PC03 Plus Postage.

DESCRIPTORS *Achievement Tests; *Adult Basic Education; Adults; *Arithmetic; *Basic Reading; Educationally Disadvantaged; Equated Scores; *Equivalency Tests; Job Skills; Proctoring; Scoring; *Testing; Test Interpretation; Test Results

IDENTIFIERS *Basic Occupational Literacy Test; General Educational Development Tests

ABSTRACT

The Basic Occupational Literacy Test (BOLT) measures basic skills of educationally disadvantaged adults in four content areas: reading comprehension, reading vocabulary, arithmetic computation, and arithmetic reasoning. Alternate forms of each subtest are available at each of three or four levels of difficulty. The Wide Range Scale is used to determine the appropriate level of each BOLT test for an individual; instructions for administering and interpreting this scale are given. Guidelines for administering BOLT and step-by-step directions for proctoring each subtest are provided. Conversion tables are included for converting raw test scores obtained on each form to standard scores and General Educational Development (GED) level. Finally, brief instructions are given for reporting and interpreting GED levels, using the Dictionary of Occupational Titles. (CP)

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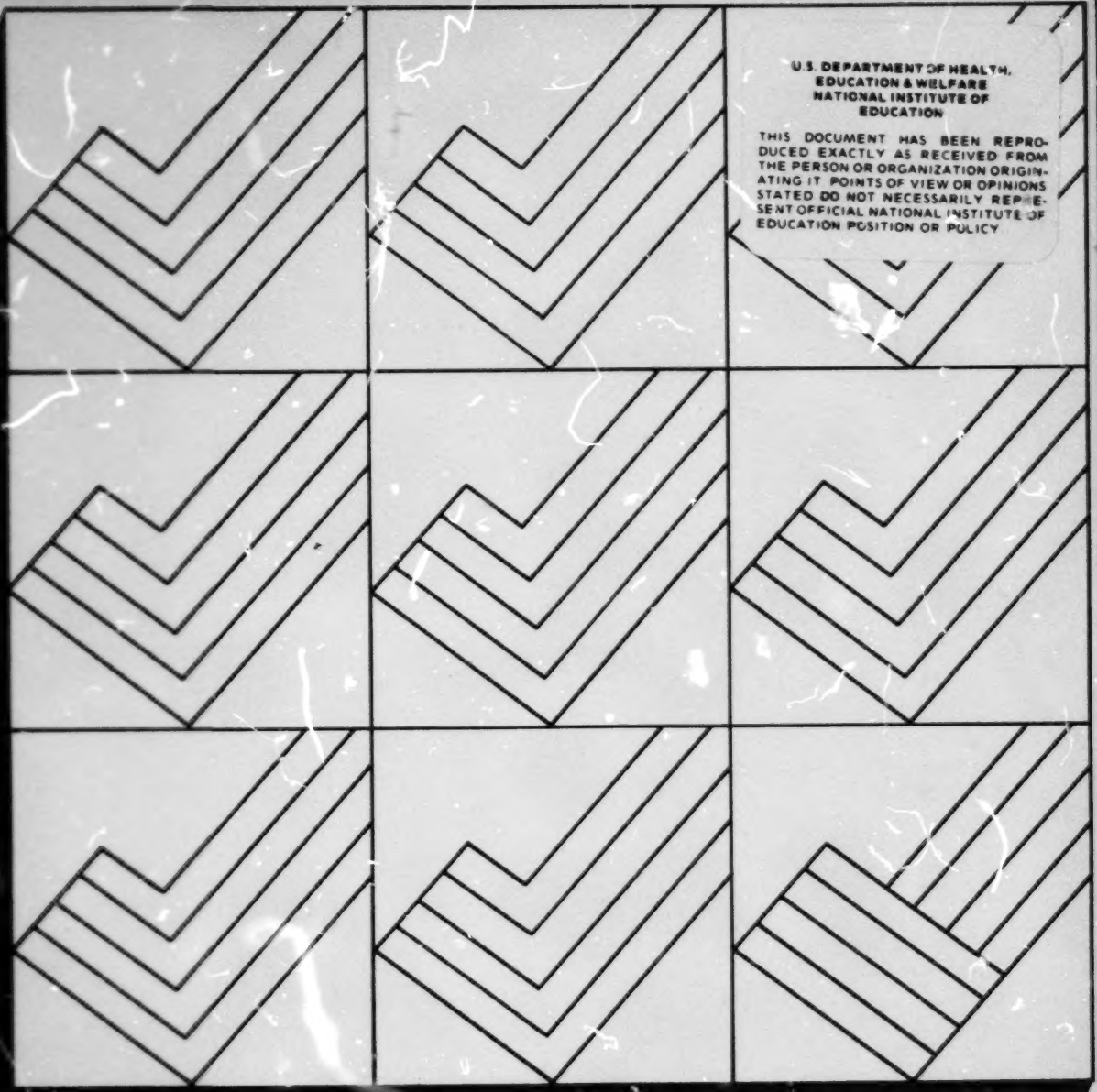

Manual for the USES Basic Occupational Literacy Test 1974

Section 1 Administration, Scoring and Interpretation

United States Department of Labor
Manpower Administration
Washington, D.C. 20213

CONTROLLED ITEM

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Foreword

The USES Basic Occupational Literacy Test (BOLT) is a test of achievement in basic reading and arithmetic skills for educationally disadvantaged adults. The *Manual for the Basic Occupational Literacy Test* is published in two separate sections as follows:

Section 1, *Administration, Scoring and Interpretation*, contains the procedures for administration, scoring and interpretation of the BOLT.

Section 2, *Development*, contains technical information on the development and standardization of BOLT.

The USES Basic Occupational Literacy Test supersedes the commercially available tests formerly approved for use in the State employment services.

Contents

Description of the USES Basic Occupational Literacy Test 1

Scheduling Applicants 5

1. Who Should be Scheduled to take the BOLT 5
2. Directions for Use of the Wide Range Scale 5

Administration 11

1. Guidelines for Test Administration 11
2. Directions for Administering BOLT 15

Scoring, Converting and Recording 37

1. Directions for Hand Scoring 37
2. Directions for Machine Scoring 37
3. Directions for Conversion of Raw Scores to Standard Scores and GED Levels 38
4. Entering Results on the Test Record Card and the Test Appointment Form 57

Use of Test Results 61

1. Interpretation of BOLT GED Scores Using DOT Supplement 2 61
2. Interpretation of BOLT GED Scores Using DOT Supplement 3 62
3. Integration of BOLT Results With Other Information 63

Description of the USES Basic Occupational Literacy Test

The USES Basic Occupational Literacy Test (BOLT) is a test of basic reading and arithmetic skills for use with educationally disadvantaged adults. Reading skills are assessed by a Reading Vocabulary subtest and a Reading Comprehension subtest. Arithmetic skills are assessed by an Arithmetic Computation subtest and an Arithmetic Reasoning subtest.

BOLT Reading Vocabulary (RV), Reading Comprehension (RC), and Arithmetic Computation (AC) test forms are available at four levels of difficulty: Advanced, High Intermediate, Basic Intermediate and Fundamental. BOLT Arithmetic Reasoning (AR) test forms are available at three levels of difficulty: Advanced, Intermediate and Fundamental.

Alternate forms (A and B or A, B and C) are available at each level of difficulty as shown below:

READING VOCABULARY

Difficulty Level		Test Forms	No. of Items per Form
Advanced	(1)	RV1A, RV1B	14
High Intermediate	(2)	RV2A, RV2B, RV2C	14
Basic Intermediate	(3)	RV3A, RV3B, RV3C	14
Fundamental	(4)	RV4A, RV4B, RV4C	14

READING COMPREHENSION

Difficulty Level		Test Forms	No. of Items per Form
Advanced	(1)	RC1A, RC1B	12
High Intermediate	(2)	RC2A, RC2B, RC2C	12
Basic Intermediate	(3)	RC3A, RC3B, RC3C	12
Fundamental	(4)	RC4A, RC4B, RC4C	12

ARITHMETIC COMPUTATION

Difficulty Level		Test Forms	No. of Items per Form
Advanced	(1)	AC1A, AC1B	14
High Intermediate	(2)	AC2A, AC2B, AC2C	14
Basic Intermediate	(3)	AC3A, AC3B, AC3C	15
Fundamental	(4)	AC4A, AC4B, AC4C	20

ARITHMETIC REASONING

Difficulty Level		Test Forms	No. of Items per Form
Advanced	(1)	AR1A, AR1B	12
Intermediate	(2)	AR2A, AR2B, AR2C	12
Fundamental	(3)	AR3A, AR3B, AR3C	14

The content of BOLT items is generally suitable for adults; content pertaining to school, toys, and other children's activities is not used. In general, reading content is similar to that found in newspapers, popular magazines, or nontechnical instruction manuals.

The separate reading and arithmetic subtests of BOLT may be administered independently. In most instances, however, it will be useful to have information for an examinee on all subtests of BOLT. The usual order of administration is: Reading Vocabulary, Reading Comprehension, Arithmetic Computation and Arithmetic Reasoning when all four subtests are administered. The order of administration may be altered for the purpose of administering fewer than four subtests or for any other useful purpose at the Test Administrator's discretion.

The Counselor or Test Administrator determines the appropriate level of BOLT for each individual to take in each content area by using a combination of Wide Range Scale scores and the individual's reported years of education. The Wide Range Scale consists of eight Vocabulary items and eight Arithmetic items administered to each applicant individually by the Counselor or Test Administrator, or in groups by the Test Administrator.

Specific instructions for using the Wide Range Scale and years of education to determine appropriate BOLT forms to be administered are given later in this *Manual* under "Scheduling Applicants."

BOLT is administered in mark-in type booklets which are easier for disadvantaged persons to use than are the typical test booklets with separate answer sheets. Answers are marked on a single removable answer sheet attached to the booklet, rather than on each page as is usual for mark-in booklets. With all answers grouped on a single sheet, only one scoring stencil is needed for each subtest and the scoring process is simplified.

Time limits for BOLT are generous enough to permit most individuals to attempt to answer every item. BOLT time limits and approximate time required for test administration are listed as follows:

Test Part	*Time Limits*	*Approximate Time for Test Administration*
Reading Vocabulary	15 minutes	25 minutes
Reading Comprehension	15 minutes	25 minutes
Arithmetic Computation	30 minutes	40 minutes
Arithmetic Reasoning	30 minutes	40 minutes

A break period of ten or fifteen minutes should be allowed after two tests are administered provided that three or four tests are to be administered altogether. If only two tests are administered, a break is not necessary unless examinees show signs of fatigue. No break is needed if only one test is administered.

584-043 O - 75 - 2

Scheduling Applicants

1. WHO SHOULD BE SCHEDULED TO TAKE THE BOLT

Many of the applicants who are scheduled to take the BOLT will be the same applicants who are scheduled to take the Nonreading Aptitude Test Battery (NATB). When the Wide Range Scale is given to determine whether the GATB or NATB should be administered, it should also be used to schedule the BOLT. After results of the Wide Range Scale are known, the applicant should be scheduled for testing on both the BOLT and the NATB (but not all on the same day and not necessarily in that order) so that results of both tests will be available for counseling and placing disadvantaged applicants.

In addition, anyone who is scheduled for a Spanish Language version of the GATB or NATB should be given the BOLT to see whether he can be placed in English speaking training or work environment. The Wide Range Scale is to be used for determining the appropriate BOLT level for foreign language speaking applicants. However, a person who has achieved a certain level of education in a foreign language will obviously be at a disadvantage on an English language achievement test which presupposes that level of education in the English language. In general the lower range of "Years of Education" (0–6 yrs on the BOLT Level Grid) should be used in determining the BOLT level to be taken.

The Wide Range Scale should be administered individually by the Counselor to counselees. When the BOLT is used in placement, it is better for the testing unit to administer the Wide Range Scale. When this is done, the Wide Range Scale may be administered either individually or in groups.

2. DIRECTIONS FOR USE OF THE WIDE RANGE SCALE

The Wide Range Scale is used to determine the appropriate level of each BOLT test for an individual. It consists of eight vocabulary items and eight arithmetic items. The Wide Range Scale is to be administered in an informal setting. Be patient and reassuring. Seat the examinee at a table or desk in a quiet place where he can be observed. Provide him with two sharp-pointed soft lead pencils.

Say to the examinee, "I'M GOING TO GIVE YOU A FEW SHORT EXERCISES TO DO. THIS IS NOT A TEST, BUT LATER ON WE MAY WANT TO GIVE YOU SOME TESTS AND THESE EXERCISES WILL HELP US TO FIND OUT WHICH ONES WOULD BE BEST FOR YOU. YOU CAN'T FAIL, AND YOU WON'T BE TIMED. YOU'LL HAVE AS MUCH TIME AS YOU NEED."

Give the examinee a copy of the Wide Range Scale. Identifying information on page 1 may be completed either by the examiner or the examinee.

Say, "YOU WILL WORK THE EXERCISES ON BOTH SIDES OF THIS SHEET. NOW LOOK AT THE SAMPLE IN THE UPPER LEFT HAND CORNER (point to sample sentence). THE SENTENCE SAYS, 'SOMEONE WHO TAKES CARE OF SICK PEOPLE IS A _____.' WHICH OF THESE (point) IS THE RIGHT ANSWER? MAID, CHIEF, NURSE, LEADER, OR PAINTER. (Get response from individual). YES, *NURSE* IS THE RIGHT ANSWER SO THE CIRCLE NEXT TO *NURSE* HAS BEEN FILLED TO SHOW THAT "NURSE" IS THE RIGHT ANSWER."

"YOU WILL SHOW YOUR ANSWERS TO THE REST OF THE EXERCISES IN THIS WAY. FILL IN THE CIRCLE FOR YOUR ANSWER. REMEMBER THAT ALL THE ANSWERS YOU CHOOSE ARE TO BE MARKED IN THESE CIRCLES. (Again point to answer circles). DON'T WRITE ANYTHING IN THIS BLANK SPACE (point to blanks in sentence). IF YOU ARE NOT SURE OF THE CORRECT ANSWER, MAKE YOUR BEST GUESS. DON'T WASTE TOO MUCH TIME ON ANY ONE EXERCISE (reinforce this instruction if necessary). WHEN I TELL YOU TO BEGIN, START WITH EXERCISE 1, AND DO THE OTHER EXERCISES IN ORDER: 1, 2, 3, 4 DOWN THE PAGE, THEN START AT THE TOP OF THE PAGE FOR NUMBER 5 (point to number 5). HERE AT THE BOTTOM OF THE PAGE IS A STOP SIGN (point to stop sign). WHEN YOU FINISH THIS EXERCISE (point to item 8) LET ME KNOW, AND I WILL SHOW YOU WHAT YOU ARE TO DO NEXT. DO YOU HAVE ANY QUESTIONS?" (Answer any questions.)

"YOU MAY BEGIN NOW."

Observe the examinee. If it becomes apparent that he has worked to his limit and/or is engaging in blind guessing, have him go on to the next part. When the examinee has completed Part 1, tell him, "Turn the page over." Then say, "NOW YOU WILL WORK SOME EXERCISES IN ARITHMETIC. WORK THEM RIGHT ON THIS PAGE BUT DON'T MAKE ANY MARKS IN THESE ANSWER BOXES (point). FIGURE YOUR ANSWERS AND THEN LOOK TO SEE IF THE ANSWER YOU GET IS NEXT TO ONE OF THESE CIRCLES. (Point to answer circles.) IF YOUR ANSWER IS SHOWN HERE (point) FILL IN THE CIRCLE FOR YOUR ANSWER. IF THE ANSWER YOU GET IS *NOT* SHOWN HERE IN THIS LIST OF NUMBERS FILL IN THE CIRCLE HERE, (point) NEXT TO "RIGHT ANSWER NOT SHOWN." DON'T MAKE ANY MARKS INSIDE THESE ANSWER BOXES. (Point to boxes containing response alternatives.) BE SURE YOU FOLLOW THESE INSTRUCTIONS (point) THAT TELL YOU WHETHER TO ADD, SUBTRACT, MULTIPLY OR DIVIDE. WHEN I TELL YOU TO BEGIN, START WITH EXERCISE 1, AND WORK THE OTHER EXERCISES IN ORDER: 1, 2, 3, 4 DOWN THE PAGE, THEN START AT THE TOP OF THE PAGE FOR NUMBER 5 (point to number 5). WHEN YOU COME TO THE END OF THE PAGE AND SEE THIS STOP SIGN (point to stop sign) *STOP* AND PUT YOUR PENCIL DOWN.

"DO YOU HAVE ANY QUESTIONS?" (Answer any questions.)

"YOU MAY BEGIN NOW."

Again observe the examinee and stop him if he appears to have worked to his limit and/or is engaged in blind guessing. When the examinee has finished working, collect the Wide Range Scale and pencils and thank him for his cooperation.

The Wide Range Scale is scored with two stencils: Scoring Key for Wide Range Scale-Vocabulary and Scoring Key for Wide Range Scale-Arithmetic. The first step in scoring is to check both sides of the Wide Range Scale for multiple answers and draw a red line through all the choices on items where more than one answer circle is filled in. Next, place the Vocabulary Key over Page 1 of the Wide Range Scale and count the number of circles filled in (except those crossed out in red). The Vocabulary score is the number of correct answers given on page 1. The Arithmetic score is the number of correct answers visible through the Arithmetic Key when it is placed over Page 2. Results on the Wide Range Scale are interpreted together with information on claimed years of education and other information obtained in the interview to choose the most appropriate level of the BOLT for the examinee to take. Scores on Wide Range Vocabulary are used in choosing levels of the BOLT Reading Vocabulary and Reading Comprehension tests forms, and scores on Wide Range Arithmetic are used in choosing levels of the BOLT Arithmetic Computation and Arithmetic Reasoning. The appropriate level of BOLT Reading Vocabulary and Reading Comprehension to be administered are read from the same BOLT Level Grid. Appropriate BOLT Arithmetic Computation and BOLT Arithmetic Reasoning levels are read from separate BOLT Level Grids. The use of the Grids may result in the choices of different levels of BOLT in Arithmetic Computation and Arithmetic Reasoning. The level of the two reading booklets (Reading Vocabulary and Reading Comprehension) may be different from either one or both of the arithmetic booklets. The reading booklets will be the same unless it is decided that different reading levels should be administered.

Look at the BOLT Level Grid for Reading Vocabulary and Reading Comprehension below. Wide Range Vocabulary Scores are presented across the top of the Grid. Now look at the left hand side of the Grid where Years of Education (as claimed by the applicant) are shown. The numbers inside the boxes under the Scores on Wide Range Vocabulary and to the right of Years of Education are the level of BOLT suggested for the individual.

Example: An applicant achieves a Vocabulary Score of 1 on the Wide Range Scale. He claims 4 years of education. Find the Vocabulary Score of 1 along the top of the Grid in the score range 0–2. Look to the left of the Grid and locate 4 years of education in the range of Years of Education 0–6 years. Read across from the 0–6 years to just below Vocabulary Score Range 0–2 and find the number 4. The appropriate level of BOLT Reading Vocabulary and Reading Comprehension to administer is 4. However, other information gathered in the counseling interview or observations made while the applicant took the Wide Range Scale may suggest that another (in this case higher) level would be more appropriate. (Examples of such other infor-

mation to be used in interpreting Wide Range Scale scores are listed following the explanation of the BOLT Level Grid for Arithmetic Reasoning.)

BOLT Level Grid—Reading Vocabulary and Reading Comprehension

Years of Education	Wide Range Vocabulary Scores				
	0–2	3	4–5	6	7–8
0–6 years	4	4	3	3	2
7–12 years	4	3	3	2	1

BOLT Level Grid—Arithmetic Computation

Years of Education	Wide Range Arithmetic Scores			
	0–3	4–5	6	7–8
0–6 years	4	4	3	2
7–12 years	4	3	2	1

BOLT Level Grid—Arithmetic Reasoning

Years of Education	Wide Range Arithmetic Scores			
	0–2	3	4–5	6–8
0–6 years	3	3	2	2
7–12 years	3	2	2	1

The use of the Arithmetic Computation Grid is similar to the use of the Reading Vocabulary and Reading Comprehension Grid. Wide Range Arithmetic Scores are along the top of the Grid and Years of Education are to the left. The appropriate level of BOLT Arithmetic Computation can be found at the intersection of Wide Range Arithmetic Score achieved and reported years of education.

The Arithmetic Reasoning Grid differs from the other Grids in the number of levels of BOLT available, since level 3 is the lowest. However, level 3 of the Arithmetic Reasoning is roughly comparable to level 4 of Arithmetic Computation so that administering a

level 3 Arithmetic Reasoning Test and a level 4 Arithmetic Computation Test to the same individual is often appropriate.

Other factors which may be considered in interpreting performance on the Wide Range Scale are:

1. The amount of time required to complete each part of the Wide Range Scale. (For example, very slow workers may require a lower level of BOLT than their Wide Range Score would indicate.)

2. The way the examinee works out problems. (Obvious guessing, for example, may result in a high Wide Range Scale score that is due to luck, so a lower BOLT level may be appropriate.)

3. The Vocabulary performance of an individual in assigning test level for Arithmetic Reasoning. (Extremely low reading ability may suggest that a lower level of Arithmetic Reasoning is appropriate.)

4. Work history. (For example, extensive work experience in an occupation known to require literacy in arithmetic higher than the examinee's stated education might suggest a higher BOLT level.)

BOLT test level and form should be recorded on the Test Appointment Form. Each BOLT Test to be scheduled should be checked and the level and form letter designation entered following the test designated by initials (e.g. RV1A). If this is the first time the applicant is taking BOLT, Form A should be designated. If it is a retest, Form B should be designated. Form C should be used only if both Forms A and B have been taken by the applicant. Intervening literacy training should ordinarily be given before Form C is used. The Wide Range Scale should be clipped securely to the test unit's copy of the Test Appointment Form so the Test Administrator can record the Wide Range results on the Test Record Card and retain the Wide Range Scale itself for the required retention period.

Administration

1. GUIDELINES FOR TEST ADMINISTRATION

Qualifications of Test Examiners and Proctors. The usefulness of a test depends, in part, on how well it is administered. Although the qualifications required for adequate test administration vary with the type of test and the characteristics of the examinees, all test examiners and proctors must be able to:

A. Establish a good working rapport with the group.

B. Give specific directions in an unstilted manner and with a helpful attitude.

C. Give individual attention and encouragement when necessary to examinees.

D. Detect loss of motivation, boredom, confusion, and frustration on the part of the examinees.

E. Analyze and evaluate an examinee's incorrect response to distinguish which part of the directions is causing difficulty.

Because testing of the disadvantaged emphasizes the need for rapport and insight on the part of the examiner, test administrators who are overly formal in the presentation of their directions may not be the most desirable people to administer the BOLT.

The test administrator should have a wide range of test administration experience including experience in testing disadvantaged individuals. He must be sensitive to the needs of the examinees and be able to adapt his test administration to meet these needs.

The examiner and proctor must be thoroughly familiar with the test materials and the directions for administration. At least one practice administration is essential before an examiner is ready to administer the tests operationally.

Overall Approach. All directions must be read verbatim to insure that the tests will be administered in an identical manner to all examinees. Deviations from instructions printed in the *Manual* may change the tests and invalidate the results. However, if the examinees do not understand the verbatim directions, the test administrator and the proctor must be able to provide appropriate help on an individual basis.

The proctor assists the test administrator by watching the examinees' behavior carefully and checking to see if the Practice Exercises are being done correctly. Both examiner and

364-040 O - 73 - 3

proctor give additional directions to individuals who need help and take notes on any behavior that may affect the examinee's test results.

Perhaps the most important variable affecting adequacy of a test administration is the amount of advance preparation through study, practice and experience on the part of the administrator. The most effective administrations are those that have received sufficient preparation, and this is particularly true when the individuals to be tested are disadvantaged.

Specific points to remember when administering tests to the disadvantaged are as follows:

1. Be friendly. Indicate willingness to help. Be patient and reassuring in answering questions and explaining procedures.

2. Make sure test administration is orderly.

3. Avoid giving instructions in a monotonous tone of voice.

4. Amplifying instructions should be spontaneous and supportive.

5. Expect individual differences in amount of time and help needed to understand the directions.

6. Watch for such clues as incorrect responses, puzzled expressions, etc., that indicate lack of comprehension.

7. Always assume the examinees can do well once they understand the test. Be patient and give reassurance to examinees as necessary.

8. Identify examinees who do not appear to understand what to do on the test, did not work at it, etc., and document this information in the comments section of the Test Record Card.

Preparing Examinees for the BOLT. At the time each examinee is scheduled to take the BOLT, he may be given a booklet entitled "Doing Your Best on Reading and Arithmetic Tests." The booklet describes the tests, states the purpose of testing and lists helpful hints on test taking.

Testing Room Facilities. It is particularly important that these facilities be appropriate to testing disadvantaged individuals. Freedom from noise and interruptions are particularly important. To insure that there are no interruptions, a sign stating that "Testing is in Progress—Keep out" should be placed on the door of the test room. The seats should be far enough apart to prevent interference between examinees and permit proctoring of test proceedings.

Grouping Examinees. Examinees may be tested in groups. No more than ten individuals may be tested at one time. Each session with more than five individuals must have a proc-

tor to assist the test administrator in providing help and assurance to the examinees. The directions for all forms and levels within a content area are the same. Therefore, individuals at different levels of proficiency in basic skills and individuals taking different forms at the same level may be tested together.

Duties of the Proctor. Since many disadvantaged experience testing problems that they do not report because of shyness or because of unwillingness or inability to verbalize, an alert and helpful observer is an indispensible member of the testing team. The test administrator is often preoccupied with giving directions and answering questions so he may miss some visual cues that examinees are not catching on. The proctor's main duty is to look for problems and to correct them or to report to the test administrator that uncorrected problems were present. The proctor helps during practice exercises to insure that examinees are on the right page, are answering in the right row, etc. When appropriate, the proctor aids in giving amplifying directions, answers questions and maintains order. The proctor also times the test, along with the test administrator, to prevent timing errors that invalidate test results.

Introductory Statement. It is most important for the test administrator to establish good communication at the outset. This means that the introductory statement about the testing should be delivered informally rather than read. The content of the statement will vary with the group to be tested, but the following points should be covered:

1. Give a nontechnical explanation of why the examinees are being tested. In some instances it may be desirable to precede this explanation with a question such as: "Why do you think you were asked to come here today to take these tests?" This provides an opportunity to clear up any misunderstandings at the beginning.

2. Assure examinees that the test results will be used only to help them to find suitable employment or training and that each person in the group will be told only about his own test results and not about anyone else's test results.

3. Give a general description of the tests that they will be taking, pointing out that there will always be practice before each test.

4. Point out that the examinees should try all of the items in the tests even if it is necessary to guess some answers.

5. Demonstrate with one of the booklets to show the examinees that each page is shorter than the page before it. Point out that answers are made by filling in the answer circle closest to the edge of the page they are working on. Explain what the arrows and the stop signs mean.

6. Tell the examinees that you will supply everything that is needed for the tests including pencils and paper. Ask that they put away any pens, pencils or paper of their own.

7. Give information about breaks.

Observations During Testing. The test administrator and proctor should make observations of the examinees' behavior during the testing session(s). Particular attention should be paid to examinees showing signs of anxiety, having difficulty with instructions, and appearing to have a short attention span. Behavior which may have affected the examinee's performance on the BOLT should be recorded in the Comments section of the Test Appointment Form. If these observations are accurately recorded, the counselor will have an additional source of information to aid in his interpretation of test scores.

3. DIRECTIONS FOR ADMINISTERING BOLT

Materials Required. The following materials are needed for each test administration:

1. Test forms appropriate for each individual.
2. One answer sheet for each examinee.
3. Two paper clips for each examinee. (See BOLT *Supply List*)
4. Test Record Cards for BOLT.
5. Sharpened No. 2 or 2½ pencils with erasers. (2 per examinee)
6. Two stopwatches.
7. Scratch paper.
8. Test administrator's instructions in this *Manual.*

Before the testing session, the test administrator should have a name list with appropriate test forms listed for each examinee. The test administrator must identify each examinee by his name when he is seated in the testing room to be sure that each examinee is given the test forms listed for him.

If machine scoring is to be done, the test administrator should read the information on the reverse side of the answer sheet to learn what additional examinee identifying information is needed and make sure that the information is available to scoring personnel. Directions for machine scoring are provided in this *Manual* under "Scoring, Converting and Recording."

Presenting Directions. Directions for administering each test are the same for all levels within a content area (e.g. Reading Vocabulary) and the same for each alternate form (e.g. Form RV1A directions are the same as for RV1B, RV2A, RV4C, and so forth). Because of this, persons may be tested together who are taking different levels and different alternate form of BOLT.

Instructions given inside boxes are to be read verbatim unless the words are enclosed in parentheses. Directions in parentheses are for the test administrator.

Directions for Identifying the Answer Sheet. Distribute to each examinee the appropriate form of the first test booklet (usually Reading Vocabulary), an answer sheet and two sharp pencils.

Test Directions

Then read the instructions to the examinees as follows:

> You have been given a booklet and an answer sheet.
>
> Please don't open your booklet until I ask you to do so.
>
> On each side of the answer sheet are some spaces for you to fill in your name and some other facts.
>
> Turn your answer sheet so that the orange band is at the top of the sheet and the green band is at the bottom. (Pause)
>
> Now take your pencil and print your full name on this line. (Point to the name line)

Check to see that all examinees are printing their names properly. Then say:

> Under your name, please print your address.

Check to see that each examinee has filled in his address. Help those who do not know how to write. Then say:

Turn your answer sheet over so that the blue band is at the top and print your name on this line. (Point)

Below your name put your date of birth. (Pause) Next to your date of birth put today's date. Today's date is _____.

After all examinees have completed personal data, say:

Take your booklet and turn it over so that the back cover is turned up. (Pause)

Open the back cover. Pick up the answer sheet by the blue (orange, yellow or green as appropriate) edge and place it over the opened back cover. Close your booklet so the front cover is up and the black dot at the top of the answer sheet lines up with the top wide line on the front of the booklet. Fasten the answer sheet with the clips provided.

Your booklet and answer sheet should look like this. (Show a booklet with the answer sheet correctly inserted. Make sure that all answer sheets are correctly inserted and provide help as needed.)

Reading Vocabulary

Directions for Administering Reading Vocabulary

If you have not already done so, distribute to each examinee the appropriate Reading Vocabulary booklet face side down with the answer sheet properly identified, inserted and secured. Have a sample Reading Vocabulary booklet ready for illustration. Then read the instructions to the examinees, as follows:

> Please don't open your booklet until I ask you to do so.
>
> Make sure that the name you see through the cut-out in the back cover is yours. (Point) Now turn the booklet over so it is face up.
>
> There are four wide lines on the front of your booklet. Each line has a circle next to it. (Point)
>
> The top and the bottom circles have already been filled in. (Point)
>
> Take your pencil and fill in the circles next to the other two lines. (Point) Make sure your marks are heavy and that they fill the circles completely.

Make certain that all examinees have correctly filled in the circles. Then say:

584-069 O - 75 - 4

Words are used in many different jobs. Because words are so important, you should find out how much you know about them.

In this booklet (hold up Reading Vocabulary booklet) are some questions about words.

Open your booklet. (Pause) Look at the Practice Exercises. Here are some word questions like the questions you will answer in this booklet.

Look at Practice Question 1. (Point to Practice Question 1 in the booklet)

Check to see that all examinees have the correct page in their test booklets. Then say:

Practice Question 1 is a picture. With the picture are five words. One of these words tells what the picture is.

House is the right answer, so the circle next to the word *house* has been filled in to show that *house* is the right answer.

Are there any questions?

Pause to answer any questions. Then say:

Now look at Practice Question 2.

'If you are sick, you go to a _____.'

Choose the word that gives the name of the person you would go to if you were sick.

If you were sick, you would go to a *doctor*, so the circle next to the word *doctor* has been filled in to show that *doctor* is the right answer.

Are there any questions? (Pause)

Answer any questions. Then say:

Now you are to do Practice Questions 3 and 4.

For each question choose one of the five words for your answer.

Mark your answer by filling in the circle next to the word you think is right. Be sure that you make a solid black mark.

When you have finished Practice Questions 3 and 4, *stop* at the Stop Sign and wait for further instructions.

Ready? Begin!

Allow sufficient time for examinees to complete the practice exercises. Check each test booklet to make certain that each examinee is marking his answers properly. If marks are too light or circles are not filled, demonstrate how to mark properly. Then say:

Please check your answers while I read aloud. (Pause)

The right answers are: Question 3—Second answer; Question 4—Fifth or last answer.

Are there any questions on how you are to do the exercises? (Pause)

Answer any questions. Allow time for the proctor to help examinees who had trouble answering Practice Questions. Then say:

I will tell you when to turn the page. On the next few pages are more questions like these. Do them in the same way.

Mark your answers by filling in the circle next to the word you think is right. Erase *completely* any answer you want to change.

Remember, for each question choose *one* of the five words for your answer.

15 min.

Try to answer every question, but don't spend too much time on any one question. If you're not sure what the right answer is, give what you think might be the best answer.

Please stop when you come to the Stop Sign.

Work as fast as you can but try not to make mistakes. You will have 15 minutes to answer the questions.

Are you ready? (Pause) Turn the page.

Begin! (Start the stopwatch)

Check to make sure that examinees begin at the right place and that they are marking their answers properly.

When all examinees have quit working or the time allowed has expired, say:

Stop! Put your pencils down. (Pause) Close your booklets.

Collect the test booklets. If this is the last test, also collect the pencils and thank the examinees for their cooperation.

If another test is to follow, the test administrator and the proctor should remove the answer sheet from each booklet and insert it into the next test booklet to be given to the examinee.

Reading Comprehension

Directions for Administering Reading Comprehension

If you have not already done so, distribute to each examinee the appropriate Reading Comprehension booklet face side down with the answer sheet properly identified, inserted and secured. Have a sample Reading Comprehension booklet ready for illustration. Then read the instructions to the examinees, as follows:

> **Please don't open your booklet until I ask you to do so.**
>
> **Make sure that the name you see through the cut-out in the back cover is yours. (Point) Now turn the booklet so it is face up.**
>
> **There are four lines on the front of your booklet. Each line has a circle next to it. (Point)**
>
> **The top and the bottom circles have already been filled in. (Point)**
>
> **Take your pencil and fill in the circles next to the other two lines. (Point) Make sure your marks are heavy and that they fill the circles completely.**

Make certain that all examinees have correctly filled in the circles. Then say:

> **Reading is used in many different jobs. Because reading is so important, you should find out how well you read.**
>
> **In this booklet (hold up Reading Comprehension booklet) are some reading exercises.**
>
> **Now open your booklet to the first page which says 'Practice Exercises.' (Pause)**

At the top of this page you will see a short paragraph. Please read this paragraph carefully. (Pause) Now look at Practice Question 1.

'Telephones help us save _____.'

One word is missing from this sentence.

Below the sentence are five words. One of these words is the missing word. Mark your answer by filling the circle next to the word that is missing. Do this Practice Question now.

Allow examinees sufficient time to do Practice Question 1. Then say:

Time is the missing word, so the circle next to the word *time* should be filled in to show that time is the right answer.

Are there any questions? (Pause)

Answer any questions. Then say:

Now do Practice Question 2.

First, read the paragraph. Then answer the question with the information given in the paragraph. Fill in the circle next to the word you think is right. Be sure that you make a solid black mark.

When you come to the Stop Sign, stop and wait for further instructions.

Ready? Begin!

Check each examinee to make certain that he is marking his answers properly. If marks are too light or circles are not filled, demonstrate how to mark properly. When all have finished say:

> The correct answer for Practice Question 2 is *call*. Therefore, you should have filled in the circle next to the word *call*.
>
> Are there any questions on how to do the exercises? (Pause)

Answer any questions. Then say:

> I will tell you when to turn the page. On the next few pages are more questions like these. Do them in the same way. *Read* the paragraph first. Then answer each question using *only* the information given in the paragraph.
>
> The reading passage always appears with the answer statements. You will not have to turn back to refer to the reading exercise. Are there any questions about the placement of the reading passages? (Pause)

Answer any questions. Then say:

27

15
min.

Mark your answer by filling in the circle next to the answer you think is right. Erase *completely* any answer you want to change.

Remember, for each question choose one of the five answers.

Try to answer every question, but don't spend too much time on any one question. If you're not sure what the right answer is, give what you think might be the best answer.

Please stop when you come to the Stop Sign.

Work as fast as you can but try not to make mistakes. You will have 15 minutes to answer the questions.

Are you ready? (Pause) Turn the page.

Begin! (Start the stopwatch)

Check to make sure that examinees begin at the right place and that they are marking their answers properly.

When all examinees have quit working or the time allowed has expired, say:

Stop! Put your pencils down. (Pause) Close your booklets.

Collect the test booklets. If this is the last test, also collect the pencils and thank the examinees for their cooperation.

If another test is to follow, the test administrator and proctor should remove the answer sheet from each booklet and insert it into the next booklet to be given to the examinee.

Arithmetic Computation

Directions for Administering Arithmetic Computation

If you have not already done so, distribute to each examinee the appropriate Arithmetic Computation booklet face side down with answer sheet properly identified, inserted and secured and some scratch paper. Have a sample Arithmetic Computation booklet ready for illustration. Then read the instructions to the examinees, as follows:

> **Please don't open your booklet until I ask you to do so.**
>
> **Make sure the name that you see through the cut-out in the back cover is yours. Now turn the booklet so it is face up.**
>
> **There are four lines on the front of your booklet. Each line has a circle next to it. (Point)**
>
> **The top and the bottom circles have already been filled in. (Point)**
>
> **Take your pencil and fill in the circles next to the other two lines. (Point) Make sure your marks are heavy and that they fill the circles completely.**

Make certain that all examinees have correctly filled in the circle. Then say:

> **Numbers are important in many different jobs. Because numbers are so important, you should find out how well you can use them.**
>
> **In this booklet (hold up Arithmetic Computation booklet) are some exercises in arithmetic.**

29

Now open your booklet and look at the Practice Exercises. (Pause) These exercises in arithmetic are like the problems you will work in this booklet.

Look at Practice Exercise 1. (Point to Practice Exercise 1 in the booklet)

Check to see that all examinees have the correct page in their test booklets. Then say:

In this problem you are to *add* 2 and 3.

Two and three are five, so the circle next to the number 5 has been filled in to show that 5 is the right answer. Are there any questions?

Answer any questions. Then say:

Now look at Practice Exercise 2. In this problem you are to subtract 5 from 9.

Five from nine is four. Notice that 4 is not shown in the answer column. Therefore, the circle next to 'Right answer not shown' has been filled in to show that none of the answers given is right.

Are there any questions? (Pause)

Answer any questions. Then say:

Now you are to do Practice Exercises 3 and 4.

Work each problem and then fill in the circle next to the answer you think is right. Be sure that you make a solid black mark.

Do your figuring on the scratch paper. Do not figure in the booklets. When you have finished Practice Exercises 3 and 4, stop at the Stop Sign and wait for further instructions.

Ready? Begin!

Allow sufficient time for examinees to complete the practice problems. Check each test booklet to make certain that each examinee is marking his answers properly, that he is getting the right answers and that he is doing his figuring on the scratch paper. If marks are too light or circles are not filled, demonstrate how to mark properly. Then say:

Please check your answers while I read them aloud.

The right answers are: Exercise 3—Fourth answer; Exercise 4—First answer.

Are there any questions on how to do the exercises? (Pause)

Answer any questions. Then say:

30
min.

I will tell you when to turn the page. On the next few pages are more problems like these. Do them in the same way.

Work each problem and fill in the circle next to the answer you think is right. Erase *completely* any answer you want to change.

Try to work every problem but don't spend too much time on any one question. If you're not sure what the right answer is, give what you think might be the best answer.

Do your figuring on scratch paper.

Please stop when you come to the Stop Sign.

Work as fast as you can but try not to make mistakes. You will have 30 minutes to answer the questions.

Are you ready? (Pause) Turn the page.

Begin! (Start the stopwatch)

Check to make sure that examinees begin at the right place and that they are marking their answers properly.

When all examinees have quit working or the time allowed has expired, say:

Stop! Put your pencils down. (Pause) Close your booklets.

Collect the test booklets and scratch paper. If this is the last test, also collect the pencils and thank the examinees for their cooperation.

If another test is to follow, the test administrator and proctor should remove the answer sheet from each booklet and insert it into the next booklet to be given to the examinee.

Arithmetic Reasoning

Directions for Administering Arithmetic Reasoning

If you have not already done so, distribute to each examinee the appropriate Arithmetic Reasoning booklet face side down with the answer sheet properly identified, inserted and secured and some scratch paper. Have a sample Arithmetic Reasoning booklet ready for illustration. Then read the instructions to the examinees, as follows:

> Please don't open your booklet until I ask you to do so.
>
> Make sure that the name you see through the cut-out in the back cover is yours. Now turn the booklet so it is face up.
>
> There are four lines on the front of your booklet. Each line has a circle next to it. (Point)
>
> The top and the bottom circles have already been filled in. (Point)
>
> Take your pencil and fill in the circles next to the other two lines. (Point) Make sure your marks are heavy and that they fill the circles completely.

Make certain that all examinees have correctly filled in the circles. Then say:

> Numbers are used in many different jobs. Because numbers are so important, you should find out how well you can use them.
>
> In this booklet (hold up Arithmetic Reasoning booklet) are some problems in arithmetic.

Now open your booklet and look at the Practice Exercises. (Pause) These exercises are like the problems you will work in this booklet.

Look at Practice Exercise 1. (Point to Practice Exercise 1 in the booklet)

Check to see that all examinees have the correct page in their test booklets. Then say:

Five answers are given to this problem. You are to work the problem and then fill in the circle next to the answer you think is right.

Notice that there is scratch paper provided for you to work problems. Please do your figuring on the scratch paper.

Do this practice problem now.

Check to see that all examinees are marking their answers properly and doing their figuring on the scratch paper. When all examinees have finished, say:

Please check your answer to Practice Exercise 1. The *third* answer is the right answer. Are there any questions? (Pause)

Answer any questions. Then say:

34

Now do Practice Exercise 2. Fill in the circle next to the answer you think is right. Be sure that you make a solid black mark. Do your figuring on scratch paper.

When you come to the Stop Sign, *stop* and wait for further instructions.

Ready? Begin!

Allow sufficient time for examinees to complete the practice exercise. Check each test booklet to make certain that each examinee is marking his answers properly and that he is getting the right answer. If marks are too light or the circles are not filled in, demonstrate how to mark properly. Then say:

Please check your answer to Practice Exercise 2. The second answer is the right answer. Are there any questions on how to do the exercises? (Pause)

Answer any questions. Then say:

30
min.

I will tell you when to turn the page. On the next few pages are more problems like these. Do them in the same way.

Work each problem and fill in the circle next to the answer you think is right. If the correct answer is not shown, mark the circle next to the statement 'Right answer not shown.' Erase completely any answer you want to change. Try to work every problem, but *don't* spend too much time on any one question. If you are not sure what the right answer is, give what you think might be the right answer.

Do all your figuring on scratch paper. Do not work problems in the test booklet.

Please stop when you come to the Stop Sign.

Work as fast as you can but try not to make mistakes. You will have 30 minutes to answer the questions.

Are you ready? (Pause) Turn the page.

Begin! (Start the stopwatch)

Check to make sure that examinees begin at the right place and that they are marking their answers properly.

When all examinees have quit working or the time allowance has expired, say:

Stop! Put your pencils down. (Pause) Close your booklets.

Collect the test booklets and scratch paper. If this is the last test, also collect the pencils and thank the examinees for their cooperation.

If another test is to follow, the test administrator and proctor should remove the answer sheet from each booklet and insert it into the next booklet to be given to the examinee.

Scoring, Converting and Recording

1. DIRECTIONS FOR HAND SCORING

Answer sheets should be removed carefully from the test booklets to avoid tearing. Clips that were used to hold the answer sheets should be left on the booklets for possible reuse. Booklets should be scanned for pencil marks, finger prints, torn pages, etc. and sorted for reuse or discard. Answer sheets should be stacked in piles of identical tests to ready them for scoring.

Scan the answer sheets to see whether any examinee has made more than one response to any one item. In items where this occurs, draw a red line through *all* responses and do not score the item.

Stencils are grouped and bound together by form letter (A, B and C) and the content is color coded to the content of the corresponding part of the answer sheet.

Match the letter code on the edge of the answer sheet with the letter code of the stencil set, match the color coded content area and then select the proper level of stencil for the level coded on the answer sheet.

Place the appropriate stencil over the answer sheet and count the number of correct responses (all visible marks not crossed by red pencil). Count the total number of correct responses and write the number in pencil in the *Raw Score* blank on the answer sheet. Record this raw score on the face of the Test Record Card for the Nonreading Aptitude Test Battery and the Basic Occupational Literacy Test.

All hand scoring should be checked by a second person. If the second score agrees with the recorded score, a check should be placed in the left margin of the Test Record Card next to that score. If no second person is available, the same person should rescore the test carefully.

2. DIRECTIONS FOR MACHINE SCORING

Checking for Scannability. In checking for scannability (ability of the scoring machine to read the answers), it is not necessary to look for and mark multiple responses. The answer sheets should, however, be scanned for obviously poor marking (very light marks or marks that leave large portions of the circle unfilled). Reblacken these marks and erase completely any partially erased answers. Marks made with ball point pen, fountain pen, felt pen or colored pencil will not score properly. Any such marks must be remarked with regular black lead pencil.

Completing Identification Grids. After inspecting the test responses, open the answer sheet to the center section and record all identifying and supplementary information. Carefully follow the instructions printed on the answer sheet. After all examinee information has been recorded, *REVERSE FOLD* the answer sheet so that the information grids are on the *OUTSIDE*. Care must be taken to keep the answer sheets in good condition. Avoid making any extra folds or marks. *Do not* use pins or staples to secure answer sheets together.

Organizing and Mailing. To be machine scored, *each group* of answer sheets must be accompanied by a Test Center Identification Sheet. Refer to this sheet for full instructions on entering appropriate identifying information and processing instructions.

Arrange the answer sheets so that they all face the same direction, with the examinee's name grid on top. Reports are produced in the same order as answer sheets are received, so if there is a preference in reporting sequence, arrange the sheets accordingly. (The sheet on top will be the first report.)

Carefully place the answer sheets, with the Test Center Identification Sheet on top, in an envelope or box. It is difficult to exercise *too much* care in protecting the sheets from the normal rigors of transit. There are no rules to apply except that of discretion. Use inner packing if necessary to avoid loose contents. Use sufficient outer wrap and strong *tape* (not twine) to insure delivery in good condition. If the shipment requires more than one package, place a sheet in each package that identifies the test center and the package number (e.g. pack 1 of 3, 2 of 3, etc.). Place the Test Center Identification Sheet in package 1. Send answer sheets to Intran Corporation at the address shown on the Test Center Identification Sheet.

Report of Results of Machine Scoring. The basic Intran machine scoring service provides a 5 by 8 inch test record card, as illustrated on page 59. Note that combined scoring and reporting of BOLT and NATB (or GATB) are available. Refer to the BOLT *Supply List* for a description of current services available from Intran Corporation.

3. DIRECTIONS FOR CONVERSION OF RAW SCORES TO STANDARD SCORES AND GED LEVELS

Tables are provided for converting raw test scores obtained on each form to standard scores and General Educational Development Level. Tables are grouped according to test content and test level. The conversion tables are arranged in the same order as are the Directions for Administration (i.e. Reading Vocabulary, Reading Comprehension, Arithmetic Computation and Arithmetic Reasoning). BOLT level, within each content area is arranged from most difficult to least difficult. Alternate forms are grouped together on the same page.

Look at the first conversion table, which is for Reading Vocabulary, Advanced Level, Form A (RV1A). For each raw score from 3 to 14, there is a corresponding Standard Score and a GED Level. For raw scores 0, 1 and 2 there are no corresponding Standard

Scores or GED Levels, so an asterisk is used to represent each Standard Score and GED Level corresponding to one of these raw scores. The asterisk means that the raw score is below the chance level (i.e. the level that could reasonably be expected if an examinee guessed on every item) so that individuals receiving these raw scores must be retested if usable Standard Scores or GED Levels are to be obtained.

On the following pages are tables for converting raw scores to Standard Scores and GED Levels.

39

GED Conversion Tables

BOLT Reading Vocabulary Test

Advanced Level

RV1A

Raw Score	Standard Score	GED Level
14	134	4
13	131	4
12	129	4
11	126	4
10	123	3
9	118	3
8	114	3
7	110	3
6	104	2
5	99	2
4	92	2
3	85	2
0–2	•	•

RV1B

Raw Score	Standard Score	GED Level
14	134	4
13	131	4
12	128	4
11	124	3
10	120	3
9	116	3
8	111	3
7	106	2
6	101	2
5	96	2
4	89	2
3	83	2
0–2	•	•

GED Conversion Tables

BOLT Reading Vocabulary Test

High Intermediate Level

RV2A

Raw Score	Standard Score	GED Level
14	126	4
13	121	3
12	116	3
11	112	3
10	107	2
9	102	2
8	97	2
7	92	2
6	88	2
5	84	2
4	79	2
3	74	1
0–2	•	•

RV2B

Raw Score	Standard Score	GED Level
14	129	4
13	126	4
12	122	3
11	117	3
10	109	2
9	103	2
8	97	2
7	92	2
6	87	2
5	83	2
4	80	2
3	76	2
0–2	•	•

RV2C

Raw Score	Standard Score	GED Level
14	133	4
13	129	4
12	124	3
11	118	3
10	113	3
9	107	2
8	101	2
7	96	2
6	91	2
5	86	2
4	81	2
3	76	2
0–2	•	•

GED Conversion Tables

BOLT Reading Vocabulary Test

Basic Intermediate Level

RV3A

Raw Score	Standard Score	GED Level
14	123	3
13	113	3
12	104	2
11	96	2
10	91	2
9	86	2
8	81	2
7	79	2
6	76	2
5	74	1
4	71	1
3	69	1
0–2	•	•

RV3B

Raw Score	Standard Score	GED Level
14	115	3
13	108	2
12	102	2
11	96	2
10	92	2
9	88	2
8	85	2
7	81	2
6	78	2
5	74	1
4	72	1
3	68	1
0–2	•	•

RV3C

Raw Score	Standard Score	GED Level
14	128	4
13	119	3
12	110	3
11	100	2
10	94	2
9	89	2
8	85	2
7	82	2
6	78	2
5	75	1
4	72	1
3	68	1
0–2	•	•

GED Conversion Tables

BOLT Reading Vocabulary Test

Fundamental Level

RV4A

Raw Score	Standard Score	GED Level
14	90	2
13	85	2
12	80	2
11	77	2
10	74	1
9	71	1
8	69	1
7	67	1
6	65	1
5	63	1
4	61	1
3	60	1
0–2	•	•

RV4B

Raw Score	Standard Score	GED Level
14	85	2
13	80	2
12	75	1
11	72	1
10	69	1
9	67	1
8	65	1
7	63	1
6	61	1
5	60	1
4	59	1
3	58	1
0–2	•	•

RV4C

Raw Score	Standard Score	GED Level
14	90	2
13	85	2
12	80	2
11	76	2
10	72	1
9	71	1
8	70	1
7	69	1
6	68	1
5	66	1
4	65	1
3	64	1
0–2	•	•

GED Conversion Tables

ROLT Reading Comprehension Test

Advanced Level

RC1A

Raw Score	Standard Score	GED Level
12	144	4
11	138	4
10	132	4
9	126	3
8	120	3
7	114	2
6	108	2
5	102	2
4	96	2
3	90	2
2	85	2
0–1	•	•

RC1B

Raw Score	Standard Score	GED Level
12	143	4
11	136	4
10	130	3
9	123	3
8	117	3
7	110	2
6	103	2
5	96	2
4	89	2
3	82	1
2	75	1
0–1	•	•

GED Conversion Tables

BOLT Reading Comprehension Test

High Intermediate Level

RC2A

Raw Score	Standard Score	GED Level
12	135	4
11	126	3
10	117	3
9	108	2
8	100	2
7	93	2
6	88	2
5	83	2
4	79	1
3	75	1
2	72	1
0–1	*	*

RC2B

Raw Score	Standard Score	GED Level
12	126	3
11	118	3
10	111	2
9	104	2
8	97	2
7	92	2
6	88	2
5	85	2
4	81	1
3	77	1
2	73	1
0–1	*	*

RC2C

Raw Score	Standard Score	GED Level
12	134	4
11	123	3
10	113	2
9	104	2
8	96	2
7	90	2
6	86	2
5	82	1
4	78	1
3	74	1
2	70	1
0–1	*	*

GED Conversion Tables

BOLT Reading Comprehension Test

Basic Intermediate Level

RC3A

Raw Score	Standard Score	GED Level
12	124	3
11	116	2
10	108	2
9	100	2
8	93	2
7	88	2
6	83	2
5	80	1
4	77	1
3	74	1
2	71	1
0–1	•	•

RC3B

Raw Score	Standard Score	GED Level
12	123	3
11	113	2
10	105	2
9	98	2
8	92	2
7	87	2
6	83	2
5	79	1
4	75	1
3	72	1
2	69	1
0–1	•	•

RC3C

Raw Score	Standard Score	GED Level
12	120	3
11	112	2
10	105	2
9	97	2
8	92	2
7	87	2
6	84	2
5	81	1
4	78	1
3	75	1
2	72	1
0–1	•	•

GED Conversion Tables

BOLT Reading Comprehension Test

Fundamental Level

RC4A

Raw Score	Standard Score	GED Level
12	98	2
11	92	2
10	87	2
9	83	2
8	79	1
7	76	1
6	73	1
5	69	1
4	66	1
3	64	1
2	62	1
0–1	•	•

RC4B

Raw Score	Standard Score	GED Level
12	91	2
11	87	2
10	84	2
9	81	1
8	78	1
7	75	1
6	72	1
5	69	1
4	66	1
3	63	1
2	60	1
0–1	•	•

RC4C

Raw Score	Standard Score	GED Level
12	100	2
11	93	2
10	88	2
9	84	2
8	81	1
7	78	1
6	75	1
5	72	1
4	70	1
3	67	1
2	64	1
0–1	•	•

GED Conversion Tables
BOLT Arithmetic Computation Test
Advanced Level

AC1A

Raw Score	Standard Score	GED Level
14	150	4
13	145	4
12	140	4
11	135	4
10	130	3
9	125	3
8	120	3
7	115	2
6	110	2
5	105	2
4	100	2
3	95	2
0–2	*	*

AC1B

Raw Score	Standard Score	GED Level
14	150	4
13	145	4
12	141	4
11	136	4
10	131	3
9	126	3
8	121	3
7	117	2
6	112	2
5	107	2
4	102	2
3	97	2
0–2	*	*

GED Conversion Tables

BOLT Arithmetic Computation Test

High Intermediate Level

AC2A

Raw Score	Standard Score	GED Level
14	139	4
13	132	3
12	125	3
11	118	2
10	111	2
9	105	2
8	100	2
7	95	2
6	90	2
5	86	2
4	82	1
3	78	1
0–2	*	*

AC2B

Raw Score	Standard Score	GED Level
14	143	4
13	136	4
12	130	3
11	123	3
10	117	2
9	110	2
8	104	2
7	99	2
6	94	2
5	89	2
4	84	2
3	79	1
0–2	*	*

AC2C

Raw Score	Standard Score	GED Level
14	145	4
13	136	4
12	127	3
11	119	3
10	111	2
9	105	2
8	98	2
7	95	2
6	91	2
5	87	2
4	83	1
3	80	1
0–2	*	*

GED Conversion Tables

BOLT Arithmetic Computation Test

Basic Intermediate Level

AC3A

Raw Score	Standard Score	GED Level
15	134	4
14	126	3
13	119	3
12	112	2
11	105	2
10	99	2
9	94	2
8	90	2
7	86	2
6	83	1
5	79	1
4	75	1
3	72	1
0–2	•	•

AC3B

Raw Score	Standard Score	GED Level
15	132	3
14	123	3
13	115	2
12	107	2
11	102	2
10	97	2
9	92	2
8	90	2
7	87	2
6	84	2
5	81	1
4	78	1
3	75	1
0–2	•	•

AC3C

Raw Score	Standard Score	GED Level
15	123	3
14	116	2
13	110	2
12	103	2
11	98	2
10	93	2
9	89	2
8	85	2
7	82	1
6	79	1
5	76	1
4	74	1
3	72	1
0–2	•	•

GED Conversion Tables

BOLT Arithmetic Computation Test

Fundamental Level

AC4A

Raw Score	Standard Score	GED Level
20	94	2
19	92	2
18	90	2
17	88	2
16	87	2
15	85	2
14	83	1
13	81	1
12	79	1
11	77	1
10	75	1
9	74	1
8	72	1
7	70	1
6	68	1
5	66	1
4	64	1
0–3	*	*

AC4B

Raw Score	Standard Score	GED Level
20	87	2
19	85	2
18	84	2
17	82	1
16	81	1
15	79	1
14	78	1
13	76	1
12	75	1
11	73	1
10	72	1
9	70	1
8	68	1
7	67	1
6	66	1
5	64	1
4	63	1
0–3	*	*

AC4C

Raw Score	Standard Score	GED Level
20	95	2
19	93	2
18	91	2
17	90	2
16	88	2
15	86	2
14	84	2
13	82	1
12	80	1
11	78	1
10	76	1
9	75	1
8	73	1
7	71	1
6	69	1
5	67	1
4	66	1
0–3	*	*

GED Conversion Tables

BOLT Arithmetic Reasoning Test

Advanced Level

AR1A

Raw Score	Standard Score	GED Level
12	137	4
11	133	4
10	129	4
9	125	4
8	121	4
7	117	3
6	112	3
5	106	2
4	100	2
3	93	2
2	83	2
0–1	*	*

AR1B

Raw Score	Standard Score	GED Level
12	140	4
11	135	4
10	130	4
9	125	4
8	120	4
7	115	3
6	110	3
5	104	2
4	98	2
3	90	2
2	80	2
0–1	*	*

GED Conversion Tables

BOLT Arithmetic Reasoning Test

Intermediate Level

AR2A

Raw Score	Standard Score	GED Level
12	125	4
11	120	4
10	115	3
9	111	3
8	106	2
7	101	2
6	96	2
5	92	2
4	87	2
3	82	2
2	77	2
0–1	•	•

AR2B

Raw Score	Standard Score	GED Level
12	126	4
11	123	4
10	119	3
9	115	3
8	110	3
7	105	2
6	100	2
5	95	2
4	89	2
3	85	2
2	78	2
0–1	•	•

AR2C

Raw Score	Standard Score	GED Level
12	129	4
11	126	4
10	122	4
9	116	3
8	110	3
7	104	2
6	98	2
5	92	2
4	87	2
3	82	2
2	77	2
0–1	•	•

GED Conversion Tables

BOLT Arithmetic Reasoning Test

Fundamental Level

AR3A

Raw Score	Standard Score	GED Level
14	103	2
13	98	2
12	93	2
11	88	2
10	83	2
9	79	2
8	76	2
7	73	1
6	71	1
5	68	1
4	66	1
3	63	1
0–2	*	*

AR3B

Raw Score	Standard Score	GED Level
14	105	2
13	98	2
12	91	2
11	85	2
10	79	2
9	75	2
8	72	1
7	70	1
6	68	1
5	66	1
4	64	1
3	62	1
0–2	*	*

AR3C

Raw Score	Standard Score	GED Level
14	103	2
13	96	2
12	90	2
11	84	2
10	80	2
9	77	2
8	74	2
7	71	1
6	69	1
5	67	1
4	65	1
3	63	1
0–2	*	*

4. ENTERING RESULTS ON THE TEST RECORD CARD AND THE TEST APPOINTMENT FORM

Test results are entered on the Test Record Card beginning with the raw scores. After the answer sheets for each individual have been scored and the raw scores have been checked as previously indicated, the raw scores should be entered on the Test Record Card. When all raw scores have been posted, the appropriate conversion tables should be used to find the corresponding standard scores and GED levels and these should be posted on the Test Record Card. In instances when the raw score is followed by asterisks on the conversion table, asterisks should also be entered in the standard score and GED level boxes on the Test Record Card and the following comment should be entered in the Comments section of the Test Record Card: "Standard Score(s) and GED Level(s) for BOLT Test(s) _____ _____ is (are) not available—Raw Score(s) is (are) not reliable."
Standard scores and GED levels posted on the Test Record Card must also be posted on the Test Appointment Form for transmittal to the counselor. The procedure for handling asterisked raw scores given for the Test Record Card also applies to the Test Appointment Form. Other comments relevant to counseling that are on the Test Record Card should also be copied onto the Test Appointment Form.

On the following pages are samples of the Test Record Card and the Test Appointment Form with appropriate entries for an individual who was given the BOLT Test in all four content areas. The Arithmetic Computation raw score is followed by asterisks in the standard score and GED level boxes and the appropriate comments are given in the "Comments" section of the Test Record Card. On the Test Appointment Form, the standard score and GED boxes for AC4A also contain asterisks and the same comments as were entered on the Test Record Card are entered in the "Comments" section of the Test Appointment Form for the information of the counselor.

Hicks, Raymond E.
PRINT NAME Last First Middle Initial
Address 4602 Bells Ferry Rd.
Anderson, Calif. 96007

☒ Age 40 to 64

BASIC OCCUPATIONAL LITERACY TEST

Test Date	Test Form	Raw Score	Standard Score	GED Level		Retest Date	Retest Form	Raw Score	Standard Score	GED Level
10-27-72	AR3A	3	69	1						
10-27-72	AC3A	2	71	1						
10-27-72	AC4A	3	*	*						
10-27-72	AR3A	3	63	1						

Wide Range Scale Scores	
Reading	3
Arithmetic	2

COMMENTS: Standard Score and GED for BOLT test AC4A was not computed — Raw score not reliable. Mr. Hicks appeared to be agitated by arithmetic computation exercises. He muttered almost constantly and appeared to guess many answers.

TEST RECORD CARD
NONREADING APTITUDE TEST BATTERY AND BASIC OCCUPATIONAL LITERACY TEST

U.S. DEPARTMENT OF LABOR

Manpower Administration
MA Form 7-23 (R-9/71)

NAME	I.D. NUMBER	SEX	EDUC.	TEST DATE	TEST CENTER
HICKS RAYMOND E	568-34-9774	M	8	42 10	ANDERSON CA

BASIC OCCUPATIONAL LITERACY TEST TEST DATE: PRO. NO.

VERBAL COMPREHENSION				READING COMPREHENSION				ARITHMETIC COMPUTATION				ARITHMETIC REASONING				WIDE RANGE SCALE SCORE	
Form	Grd.	Std.	Grd.	Form	Grd.	Std.	Grd.	Form	Grd.	Std.	Grd.	Form	Grd.	Std.	Grd.	READING	ARITHMETIC
3A	3	69	1	3A	2	71	1	4A	3	*	*	3A	3	63	1	3	2
																RETEST- DATE:	

APTITUDE TEST BATTERY FORM NORM. TEST DATE PRO. NO.

OCCUPATIONAL APTITUDE PATTERNS

*APTITUDE SCORE INVALID	G	V	N	S	P	Q	K	F	M
APTITUDE SCORE									
APT. SCORE (15K)									

THIS REPORT PRODUCED BY:
INTRAN CORPORATION
4588 WEST 77TH STREET
MINNEAPOLIS, MINNESOTA 55435

ADMIT	NAME Raymond E. Hicks	Age 40 to 64 [X]
	ADDRESS 4602 Balls Ferry Rd., Anderson, Calif.	
TO	TESTING UNIT (Address) 722 Main St., Anderson, Calif.	
	DATE 10-27-72	TIME 8:30 A.M.

TESTS

[ ] TYPING	[ ] Manual	[ ] Electric	[ ] Statistical
[ ] DICTATION	[ ] 60 wpm	[ ] 80 wpm	[ ] 100 wpm
[ ] SPELLING	[ ] Medical	[ ] Legal	
[ ] GATB B-1001	[ ] GATB B-1002		[ ] NATB
[X] BOLT	[X] RV 3	[X] RC 3	[X] AC 4 [X] AR 3

SATB'S *(GATB tests)*	SATB'S *(NATB tests)*
OTHER TESTS	
FROM	DATE

TEST APPOINTMENT FORM

U.S. DEPARTMENT OF LABOR
Manpower Administration

MA 7-39
R-Sep. 1971

COMMENTS Standard score and GED for Bolt test AC4A not computed. Raw score not reliable. Mr. Hicks appeared to be agitated by arithmetic computation exercises. He muttered almost constantly and appeared to guess many answers.

Test	Date	Form	Speed	Speed Grade	Errors	Accuracy Grade
TYPING ☐ Manual ☐ Electric			wpm			
DICTATION			wpm			
SPELLING ☐ General ☐ Medical ☐ Legal						
STATISTICAL TYPING						
OTHER TESTS						

BOLT READING				BOLT ARITHMETIC			
DATE	FORM	STD SCORE	GED	DATE	FORM	STD SCORE	GED
10-27-72	RV3A	69	1	10-27-72	AC4A	*	*
10-27-72	RC3A	71	1	10-27-72	AR3A	63	1

INDIVIDUAL APTITUDE PROFILE

☐ GATB ☐ NATB Form.....

Aptitudes	G	V	N	S	P	Q	K	F	M
Scores									
1 SEm	6 (7)	6	6 (9)	8	9	9	7	12	11
Aptitude Score ± 1 SEm									

NOTE: Numbers in parentheses are for NATB.

TEST RESULTS

OAP NUMBERS*	S*
All H's 23 46	
1 12 35 58	
2 13 24 36 47 59	
3 14 25 37 48 60	
4 15 26 38 49 61	
5 16 27 39 50 62	
6 17 28 40 51	
7 18 29 41 52	
8 19 30 42 53	
9 20 31 43 54	
10 21 32 44 55	
11 22 33 45 56	
	34 57

*Circle number or "All H's" in red for Grade H, Circle number in black for Grade M. Cross out number for Grade L.

GPO: 1971 O—447-662

Use of Test Results

Scores on the BOLT are expressed in standard score units which are converted to GED levels. Standard scores on the BOLT are based on an experimental sample of educationally disadvantaged. Therefore, standard scores on the BOLT are not comparable to standard scores on the GATB.

Standard scores within a subject area are on the same scale for all levels of BOLT. For this reason, standard scores can be used to compare initial and retest results for an individual tested at the same, higher or lower level of difficulty on the second test. For example, an applicant tested on Arithmetic Computation test AC4A (Fundamental level) receives a raw score of 20, which is the maximum score for the test, and which converts to a standard score of 94. The counselor wants to find out if the applicant can qualify at a higher level of Arithmetic Computation and requests a retest on Arithmetic Computation at the Basic Intermediate level. On the retest (AC3B), the examinee receives a raw score of 13 which converts to a standard score of 115. Since the retest standard score is higher than the initial test standard score, the counselor can assume that the first test was indeed too easy to assess the applicant's achievement in Arithmetic Computation.

Norms used for the interpretation of BOLT scores are expressed in terms of General Educational Development (GED) levels. The GED levels for occupations are listed in supplements to the *Dictionary of Occupational Titles*. The two supplements available at the time this *Manual* was printed (Supplements 1 & 2) are somewhat more difficult to use than the new Supplement 3 will be, but the counselor should learn to use one of the available supplements to interpret the BOLT GED levels. When Supplement 3 becomes available, it will supersede the previous supplements for use with BOLT.

1. INTERPRETATION OF BOLT GED LEVELS USING DOT SUPPLEMENT 1 (1966)

The directions for using Supplement 1 also apply to Supplement 2. Supplement 1 is preferred for use with BOLT, however.

The GED level for each occupation in Supplement 1 is expressed as a single number which represents three areas of development: Reasoning, Mathematics and Language. The GED level assigned to any given occupation represents the highest rating given to any development area by the originating occupational analyst. Since the rating given to different development areas may not be the same for any given occupation, it may be necessary for the counselor to consult the Job Description or Definition of Titles in Volume I of the DOT to determine whether one or more of the development areas (Reasoning, Mathematics or Language) may be at a lower level than the GED level shown in Supplement 1. If the counselor is familiar with the literacy skills required by the occupation, he may be able to estimate the levels of Mathematics and Language GED that are appropriate for the occupation without consulting a description of the job in question.

To illustrate how GED requirements may vary for an occupation, a Copy Reader (print. & pub.) 132.288 is assigned a GED level of 4 in Supplement 1. It is apparent from the definition in Volume I of the DOT that the Mathematical skills required of a Copy Reader are negligible while the Language skills required are considerable. On the other hand, the duties of a Carpenter (constr.) 860.381 involve Mathematical skills while Language skills required are minimal. For such occupations that are obviously lopsided in terms of the kind of literacy required, the counselor may allow a lower GED level on the BOLT in the literacy area that is of minor importance to the successful performance of the occupation. The counselor may also find that the standard score the individual received was relatively high within the range of standard scores making up a GED level on the BOLT. This would provide supporting evidence that an individual possesses adequate literacy skills. On the other hand, if a person just barely qualifies for a GED level in a content area known to the counselor to be very important to the occupation or occupational training, the counselor may decide not to refer the individual without literacy training in that content area.

When an individual receives BOLT GED's which place him below the GED level of an occupation for which he is otherwise suited as indicated by the NATB or Spanish Language version of the GATB for an occupation in which he is greatly interested, the counselor may decide to refer him to literacy training to raise his GED level. In the case of English speaking applicants, the training will be some type of basic literacy training, while foreign language speaking applicants may require some English language training. For some individuals, basic literacy training or English language training may be given simultaneously with occupational training. The BOLT test results may be of help in deciding whether simultaneous training is feasible. If an individual scores more than one level below the GED required for average successful performance of an occupation, and his low scores are in subject areas vital to the occupation, it is unlikely that he will be able to absorb the occupational training without some prior literacy training.

2. INTERPRETATION OF BOLT GED LEVELS USING DOT SUPPLEMENT 3

DOT Supplement 3 is designed specifically to meet the needs of the counselor to interpret BOLT. Each GED level for an occupation listed in Supplement 3 represents the development required in Reasoning, Mathematics or Language. The Language GED levels are the norms for the BOLT Reading Vocabulary and Reading Comprehension tests; the Mathematical GED levels are the norms for Arithmetic Computation and Arithmetic Reasoning.

The BOLT GED levels in both Reading Vocabulary and Reading Comprehension ordinarily should be as high or higher than the Language GED level for the applicant to be considered for entry into the occupation or occupational training. The BOLT GED levels in both Arithmetic Computation and Arithmetic Reasoning ordinarily should be as high or higher than the Mathematical GED level for the applicant to be considered for entry into the occupation or occupational training. The counselor may wish to make exceptions to these recommendations where his knowledge of the applicant or the requirements of the occupation suggest that the applicant possesses the more important literacy skills required by

the occupation in question. For example, if the mathematics required for an occupation are solely or primarily computational and the applicant receives a BOLT GED on Arithmetic Computation as high as the Mathematical GED required for an occupation, the counselor may choose to discount the importance of a nonqualifying BOLT GED in Arithmetic Reasoning. As an additional example, an applicant with obviously adequate comprehension of spoken language might be referred for placement in an occupation in which most of the communication is oral although his BOLT GED in Reading Comprehension and Reading Vocabulary are below the Language Development GED required for the occupation. On the other hand, if a person just barely qualifies for a GED level in a content area known to the counselor to be very important to an occupation or occupational training, the counselor may decide not to refer the individual without literacy training in that content area.

When an individual receives BOLT GED's which place him below the GED levels of an occupation for which he is otherwise suited as indicated by the NATB or Spanish Language version of the GATB or an occupation in which he is greatly interested, the counselor may decide to refer him to literacy training to raise his GED level. In the case of English speaking applicants, the training will be some type of basic literacy training, while foreign language speaking applicants may require some English language training. For some individuals, basic literacy training or English language training may be given simultaneously with occupational training. The BOLT test results may be of help in deciding whether simultaneous training is feasible. If an individual scores more than one level below one of the GED's required for average successful performance in an occupation, he is unlikely to be able to absorb the occupational training without some prior literacy training.

3. INTEGRATION OF BOLT RESULTS WITH OTHER INFORMATION

Since many factors, in addition to literacy and aptitude appraisal, determine the ultimate degree of success and satisfaction an individual derives from his work, it is of vital importance to integrate the BOLT and aptitude test results with other information so that a suitable employability plan can be developed with the counselee.

In the process of integrating the various types of information about the individual, the counselor integrates test results with all other information obtained by other methods such as interviews, doctors' reports, and school records. This enables him to consider all the factors that have a bearing on the counselee's occupational success and satisfaction: interests, potential skills, acquired skills, leisure activities, physical capacity, personal traits, social and economic factors, and literacy skills. Since there is no mathematical formula for putting all these factors together, the counselor's best judgement must be used in integrating all the information about the individual.

The most efficient use may be made of BOLT GED results if the counselor has already integrated aptitude test results and other information relevant to the counselee's occupational success and satisfaction before he compares BOLT GED's with GED requirements for occupations listed in the DOT. This preliminary integration of information should reduce considerably the number of occupations for which the counselor needs to determine the adequacy of the counselee's literacy skills.

The counselee should be involved in the exploration of the various factors that the counselor draws together to provide the basis for a suitable employability plan, since consideration of these factors will help the individual to arrive at a suitable vocational choice and will help the counselor and the counselee to jointly prepare an employability plan designed to help the individual to achieve his vocational objectives.

4. INTERPRETING TEST RESULTS FOR EDUCATORS

Educational personnel may not be familiar with the Dictionary of Occupational Title GED levels and are accustomed to thinkin in terms of school grade levels when plan ning curricula and placing students. Fo their convenience, the following table of aca demic grade ranges corresponding to GE levels is provided:

GED Level	*Corresponding Academic Grade Range*
1	1 – 3
2	4 – 6
3	7 – 8
4	9 – 12

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